10/528612

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Dated: March 21, 2005

Signature: (Mary Jane Diffalma)

JC05 Rem PCT/PTO 21 MAR 2005

Docket No.: ASZD-P01-837 (PATENT)

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:

Butters et al.

Application No.: Not Yet Assigned

Filed: March 21, 2005

For: PROCESS AND INTERMEDIATES FOR

THE PREPARATION OF THIENOPYRROLE

**DERIVATIVES** 

Confirmation No.: Not Yet Assigned

Art Unit: Not Yet Assigned

Examiner: Not Yet Assigned

## **INFORMATION DISCLOSURE STATEMENT (IDS)**

MS PCT Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

Pursuant to 37 CFR 1.56, 1.97 and 1.98, the attention of the Patent and Trademark Office is hereby directed to the references listed on the attached PTO/SB/08. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

This Information Disclosure Statement accompanies the new patent application submitted herewith.

Copies of the references on the PTO/SB/08 are not provided.

In accordance with 37 CFR 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information as defined in 37 CFR 1.56(a) exists. In accordance with 37 CFR 1.97(h), the filing of this Information Disclosure statement shall not be construed to be an admission that any patent, publication or other information referred to therein is "prior art" for this invention unless specifically designated as such.

10/528612 ket No.: ASZD-P01-837

Application No.: Not Assigned

It is submitted that the Information Disclosure Statement is in compliance with 37 CFR 1.98 and the Examiner is respectfully requested to consider the listed references.

The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 18-1945, under Order No. ASZD-P01-837.

Dated: March 21, 2005

Respectfully submitted,

David P. Halstead, Ph.D. Registration No.: 44,735

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## J605 Rec'd PCT/PTO 21 MAR 2005

PTO/SB/08a/b (08-03)
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|---------------------------------|-----------------|----------|------------|------------------------|------------------------|--|
|                                 |                 |          |            | Application Number     | Not Yet Assigned 52861 |  |
| 11                              | NFORMATIO!      | N DI     | SCLOSURE   | Filing Date            | March 21, 2005         |  |
| l s                             | TATEMENT        | BY A     | APPLICANT  | First Named Inventor   | Michael Butters        |  |
|                                 |                 |          |            | Art Unit               | Not Yet Assigned       |  |
|                                 | (Use as many si | heets as | necessary) | Examiner Name          | Not Yet Assigned       |  |
| Sheet                           | 1               | of       | 2          | Attorney Docket Number | ASZD-P01-837           |  |

|                       | U.S. PATENT DOCUMENTS    |  |                                |  |   |  |  |
|-----------------------|--------------------------|--|--------------------------------|--|---|--|--|
| Examiner<br>Initials* | Cite<br>No. <sup>1</sup> | Document Number  Number-Kind Code <sup>2</sup> ( if known) | Publication Date<br>MM-DD-YYYY | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns, Lines, Where<br>Relevant Passages or Relevant<br>Figures Appear |  |  |
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|              | FOREIGN PATENT DOCUMENTS |   |                    |                     |  |   |  |
|--------------|--------------------------|---|--------------------|---------------------|--|---|--|
| Examiner Cit |                          | Foreign Patent Document   | Publication        | Name of Patentee or | Pages, Columns, Lines,                             |   |  |
| Initials*    | No.1                     | Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known) | Date<br>MM-DD-YYYY | 1                   | Where Relevant Passages or Relevant Figures Appear |   |  |
|              | BA                       | WO-94/18196 A   | 08-18-1994         |                     |  | Г |  |
|              | BB                       | WO-02/06246 A   | 01-24-2002         |                     |  |   |  |

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|                      |                          | NON PATENT LITERATURE DOCUMENTS  |    |
|----------------------|--------------------------|--|----|
| Examiner<br>Initials | Cite<br>No. <sup>1</sup> | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.  | T² |
|                      | CA                       | Adams et al., "4-Amino-4,5-dihydrothiophene-2-carboxylic acid," Journal of Organic Chemistry 50(15):2730-2736 (1985)   |    |
|                      | СВ                       | Binder et al., "Thiophen als a Strukturelement physiologisch aktiver substanzen, 8. Mitt. 1H, 5H-Imidazo '1,2-althieno'3,4-dlpyrimidin - 2(3H)-one," Archiv der Pharmazie 314(6):556-564 (1981)  |    |
|                      | СС                       | Bjoerk et al., "Improved systhesis of thieno '2,3-bl-and '3,2-bl-fused naphthyridines," Journal of Heterocyclic Chemistry 32(3):751-754 (1995)   |    |
|                      | CD                       | Boger et al., "Total synthesis of distarnycin A and 2640 analogs: A solution-phase cmbinatorial approach to the discovery of new, bioactive DNA binding agents and development of a rapid high-throughput screen for determining relative DNA binding affinity or DNA binding sequence selectivity," Journal of the American Chemical Society 122(27):6382-6394 (2000) |    |
|                      | CE                       | Brugier et al., ".alphasubstituteion of .betathienylcarbamates: alkylation, vinylation and Pd-catalyzed coupling reactions," Tetrahedron 56(19):2985-2993 (2000)   |    |
|                      | CF                       | Brugier et al., "Synthesis and ractivity of alkyl (4-amino-3-thienyl)carbamates," Tetrahedron 53(30):10331-10344 (1997)  |    |
|                      | CG                       | Brugier et al., "Studies on the reactivity of N-(3-thienyl)carbamates," Journal of the Chemical Society, Perkin Transactions 1 1:37-43 (2001)  |    |
|                      | СН                       | Brunnett et al., "Heterocyclic amines. IV. Urethan and urea derivatives of 3-aminothiophene," Journal of Heterocyclic Chemistry 5(3):417-418 (1968)  |    |
|                      | CI                       | Carroll et al., "Competitive ortho metalation effects: the kinetic and thermodynamic lithiation of 3-(tert-butoxycarbonyl)amino-4-carbomethox ythiophene," Tetrahedron Letters 38(15):2637-2640 (1997)   |    |
|                      | CJ                       | Galvez et al., "Synthesis of isomeric.betahaloethylthienopyrroles," Journal of Heterocyclic Chemistry 21(2):393-395 (1984)   |    |
|                      | CK                       | Galvez et al., "Synthesis of thiophenedicarbonyldiazides and di-t-butyl thiophendicarbamates," Journal of Heterocyclic Chemistry 23:1103-1108 (1986)   |    |

|           | Date       |  |
|-----------|------------|--|
| Signature | Considered |  |

## JC05 Rec'd PCT/PTO 21 MAR 2005



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| Substitute for form 1449A/B/PTO |                                   |      |           | Complete if Finding 28 6 1 2 |                  |  |
|---------------------------------|-----------------------------------|------|-----------|------------------------------|------------------|--|
|                                 |                                   |      |           | Application Number           | Not Yet Assigned |  |
| II.                             | <b>VEORMATION</b>                 | I DI | SCLOSURE  | Filing Date                  | March 21, 2005   |  |
| S                               | TATEMENT E                        | 3Y / | APPLICANT | First Named Inventor         | Michael Butters  |  |
|                                 |                                   |      |           | Art Unit                     | Not Yet Assigned |  |
|                                 | (Use as many sheets as necessary) |      |           | Examiner Name                | Not Yet Assigned |  |
| Sheet                           | 2                                 | of   | 2         | Attorney Docket Number       | ASZD-P01-837     |  |

| CL | Kobayashi et al., "Heterocyclic sulfonyl compounds and activated blood coagulation factur X (FXa) inhibitors containing them," Database CA 'online! Chemical Abstracts Service, Database accesion no. 135:313616 XP002267904 368442-47-1 and JP 2001 294572 A (2001) |  |
|----|--|--|
| CM | Marques et al., "Toward an understanding of the chemical etiology for DNA minor-groove recognition by polyamides," Helvetica Chimica Acta 85(12):4485-4517 (2002)  |  |
| CN | Shinkwin et al., "Synthesis of thiophenecarboxamides, thieno '3,4-clpyridiin-4(5H)-ones and thieno '3,4-dlpyrimidin-4(3H)-ones and preliminary evaluation as inhibitors of poly(ADP-ribose)polymerase (PARP)," Bioorganic & Medicinal Chemistry 7(2):297-308 (1999)  |  |
| CC | selenolo, furo et pyrrolopyrroles," Canadian Journal of Chemistry 56(6):1429-1434 (1978)   |  |
| СР | Szabo et al., "Experimental and theoretical study of orientation in the nitration of dithieno '3,4-b:3',4'-d!pyridine," Journal of Organic chemistry 56(4):1590-1596 (1991)  |  |

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

|           | record     |
|-----------|------------|
| Examiner  | Date       |
| Signature | Considered |

<sup>&</sup>lt;sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>Applicant is to place a check mark here if English language Translation is attached.